



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor  
Ted Stewart  
Executive Director  
James W. Carter  
Division Director

1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801  
801-538-5340  
801-359-3940 (Fax)  
801-538-7223 (TDD)

m/027/006

**FACSIMILE COVER SHEET**

DATE: 4/18/97

NUMBER OF PAGES INCLUDING THIS COVER SHEET: 6

TO: S HERRON  
SRK

FAX NUMBER: 702 786-4435

FROM: T MUNSON

Minerals Reclamation and Development Program

PHONE: (801) 538-5291

FAX: (801) 359-3940

SUBJECT: EXECUTIVE SUMMARY

REMARKS: NEED VERIFICATION IF O.K.

**Should you encounter any problems with this copy, or do not receive all the pages, please call**

Important: This message is intended for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this

APR-18-97 FRI 09:46 AM

P. 01

SEND (M)

DATE	START	RECEIVER	TX TIME	PAGES	TYPE	NOTE	M#	DP
APR-18	09:42 AM	17027864435	05"	0	SEND	( M) COM. E-7	092	
	09:42 AM		3' 30"	6	SEND	( M) OK	092	

TOTAL 3M 35S PAGES: 6



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

801-538-5340

801-359-3240 (Fax)

801-538-7223 (TDD)

Michael O. Leavitt  
Governor

**Ted Stewart**  
Executive Director

James W. Carter  
Division Director

## FACSIMILE COVER SHEET

DATE: 4/18/97

NUMBER OF PAGES INCLUDING THIS COVER SHEET: 6

**TO:**

S HERRON  
SRK

**FAX NUMBER:** 702 786-7435

FROM: 71 MUNSOW

## Minerals Reclamation and Development Program





State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor  
Ted Stewart  
Executive Director  
James W. Carter  
Division Director

1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801  
801-538-5340  
801-359-3940 (Fax)  
801-538-7223 (TDD)

m/027/006

**FACSIMILE COVER SHEET**

DATE: 4/18/97

NUMBER OF PAGES INCLUDING THIS COVER SHEET: 6

TO: MIE BROWN

FAX NUMBER: 801 264 -6874

FROM: T MUNSON

Minerals Reclamation and Development Program

PHONE: (801) 538-5291

FAX: (801) 359-3940

SUBJECT: EXECUTIVE SUMMARY

REMARKS: NEED VERIFICATION IF O.K.  
THRS TOM

**Should you encounter any problems with this copy, or do not receive all the pages, please call**

Important: This message is intended for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this

TRANSACTION REPORT

APR-18-97 FRI 10:28 AM

P. 01

SEND (M)

DATE	START	RECEIVER	TX TIME	PAGES	TYPE	NOTE	M#	DP
APR-18	10:25 AM	2646874	3' 28"	6	SEND	( M) OK	096	

TOTAL 3M 28S PAGES: 6

*m/027/006*



**State of Utah**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor

Ted Stewart  
Executive Director

James W. Carter  
Division Director

1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801  
801-538-5340  
801-359-3940 (Fax)  
801-538-7223 (TDD)

**FACSIMILE COVER SHEET**

DATE: 4/18/97

NUMBER OF PAGES INCLUDING THIS COVER SHEET: 6

TO: MILIE BROWN

FAX NUMBER: 801 264 -6874

FROM: T MUNDSON

Minerals Reclamation and Development Program



# DRAFT

## EXECUTIVE SUMMARY

Revised April 15, 1997

Mine Name: Cricket Mountain Quarry  
Operator: Continental Lime Incorporated  
P. O. Box 669  
Delta, Utah 84624

Telephone: (801) 864-3823 264-6880  
Contact Person: Mike Brown

I.D. No: M/027/006  
County : Millard  
New/Existing: Existing (original approval-1/6/81)  
Mineral Ownership: BLM/State/patented lands  
Surface Ownership: BLM/State/patented lands  
Lease No.(s): ML-355572  
Permit Term: Life of mine

Life of Mine: 20 YEARS +  
1999 NEED CLI VERIFICATION (unless additional reserves permitted)

Section 30 S 1/2 and N 1/2 Section 31  
Legal Description: SE1/4 and SW1/4 Section 25, NE1/4 and NW1/4 Section 36, Township 21 South,  
Range 10 West, SLB&M, Millard County, Utah

Mineral(s) to be Mined: High-grade calcium limestone

Mining Methods: Conventional bench type mining methods using drill and blast procedures to  
produce quarry run sized limestone.

Area to be Disturbed: Entire mine operation now totals 457.7 acres. This revision increased the disturbed  
area by 288.7 acres. (213.4 acres BLM, 74 acres private, 1.3 acres state).

Present Land Use: Wildlife habitat, livestock grazing, recreation, and mining

Postmining Land Use: Wildlife habitat, livestock grazing, recreation

### Variances from Reclamation Standards (Rule R647) Granted:

**R647-4-111(8) Roads** - The section of the main haul road from the processing plant to the quarry switchback  
will be allowed to remain after final reclamation.

**R647-4-111.12 Topsoil redistribution** - Insufficient topsoil exists to sufficiently cover all disturbed areas  
with adequate soil. Amended fines will be used as a substitute soil material on benches. Approximately 78,000  
cubic yards of topsoil will be salvaged and stockpiled. This material will be used on those areas with the greatest  
potential for revegetation. A minimum of 6 inches of fines will be used and amended on the pit benches and no soil  
material will be used on the angle of repose waste rock slopes. The Division concurs that this is the best use of soil  
resources and therefore this variance is granted.

**R647-4-111.13 Revegetation** - CLI has proposed a 50% revegetation standard for areas that will not receive  
topsoil. Test plots will be implemented to determine types and rates of soil amendments to achieve  
revegetation success. The Division finds this proposed alternate standard acceptable. Because of the lack of  
soil resources for reclamation. The Division concurs that the revegetation standard for areas that do not  
receive topsoil should be reduced. CLI has proposed an alternate standard of 50% of the pre-existing  
vegetation cover. The Division finds this alternative acceptable and a variance is granted for those areas not  
receiving topsoil.



DRAFT

### **Soils and Geology:**

**Soil Description:** Lithic Xerollic Calciorthids - Xerollic Calciorthids Association, mildly - strongly alkaline, and range from stony - sandy loams, well-drained, permeability - moderate to rapid, runoff - medium to very rapid, and sediment production - moderate

**pH:** 8.0 - 8.8

**Special Handling Problems:** Desert soils, composed of silty clays and fine sandy silts, exist at the mine site, and do not pose any special handling problems. However, due to the rocky nature of the site, few native soils have been salvaged for the purpose of revegetation. Fines produced from the crushing of limestone will be used for the reconstruction of soils, over portions of the site. Test plots will be implemented to determine type and rates of soil amendments to achieve reclamation success.

**Geology Description:** Geology at the site consists of: alluvial and colluvial sands and gravels, shales and low-grade limestone, and high grade limestone. The sand and gravel material is a Quaternary Age lake terrace deposit. The shales and limestones are of the Cambrian Age and are divided into four units: Marjum Formation, Swasey limestone, Whirlwind formation, and Dome Limestone.

### **Hydrology:**

**Ground Water Description:** Ground water is encountered at approximately 600 feet below the lowest elevation at the quarry. The quality of the water is very poor. It is saline and is used for dust control and some applications at the processing plant.

**Surface Water Description:** No surface water is found in the immediate vicinity of the proposed quarry or any of the associated facilities. Runoff from rain and snow melt follows the drainage of the normally dry Beaver River. North of the Cricket Mountains this drainage joins the Sevier River approximately 20 miles from the inlet to Sevier dry lake, a 200,000 acre mud flat.

**Water Monitoring Plan:** not applicable

### **Ecology:**

**Vegetation Type(s); Dominant Species:** Scattered pinyon and juniper trees are located on the east slopes of the Cricket Mountains in the vicinity of the proposed quarry. The remainder of the area is flatland covered with cold desert vegetation, including: sagebrush, saltbrush, galleta grass, Indian ricegrass, etc. **Percent Surrounding Vegetative Cover:** Ranges from 10% to 40%, depending on slope, soil depth and rock



DRAFT

outcrop.

**Wildlife Concerns:** Wildlife density on the subject lands is low. Reptiles, song birds, rabbits and small predators are the most common. Small populations of deer and antelope inhabit the Cricket Mountain area. No critical or otherwise important nesting or wintering areas occur in this general area. Continental Lime is working with Utah DWR in establishing supplemental, adjacent area, water sources (guzzlers) for local wildlife usage.

**Surface Facilities:** This Revision will create a second crushing and screening facility (BB Dolomite Crusher) near the BB Dolomite Quarry. No other new structures are proposed to be added to the existing mine facilities under this Revision. The existing crushing and screening facility at the Poison Mountain Quarry will ~~continued~~ to be used.

## **Mining and Reclamation Plan Summary:**

### **During Operations: (Revision Areas Only)**

Three new quarries will be created under this revision to the mine plan. The new quarries are the BB Dolomite Quarry, the Flat Iron Quarry, and the North Lobe Quarry. The Flat Iron and North Lobe Quarries are also referred to as the West Quarries or West Quarry Area. Ore will be mined using conventional bench type mining methods. Drilling and blasting will be used to break up overburden and ore. The ore will be loaded into haul trucks with front-end loaders and transported to the crushers. Quarry bench faces will be approximately 20 to 25 feet high with catch benches 50 to 60 feet wide, and mining benches 200 to 300 feet wide. Overburden will be transported to one of four designated disposal areas and dumped creating angle of repose dump slopes. Undersize materials from crushing will be placed on the existing Poison Mountain Stockpile or in the new BB Dolomite Undersize Stockpile.

### **After Operations:**

#### **SUMMARY OF RECLAMATION PLAN BY REVISION AREA (NEED CLI VERIFICATION)**

##### **Overburden Disposal Areas #1, #2, #3, #4 (67 acres)**

Dump tops to receive 6 inches of topsoil, seed & amendments.

Slopes to remain at angle of repose & receive seed only.

Angle of repose slopes granted a variance from 70% revegetation standard. Alternate standard of 50% revegetation success on slopes established until test plot data supports other standard.

? BARE ROCK

##### **Poison Mtn. Undersize Stockpile (existing stockpile expanded by 4.1 acres)**

Top to receive 6 inches of topsoil, seed & amendments

All slopes to be regraded to 3H:1V, receive 6 inches of topsoil, seed & amendments



# DRAFT

Page 4  
Executive Summary  
Continental Lime  
M/027/006

## BB Dolomite Undersize Stockpile (29.5 acres)

Top to receive 1 foot of topsoil, seed & amendments

North & west slopes regraded to 3H:1V.

North & west slopes to receive 1 foot of topsoil, seed & amendments

*THEY ARE AT GRADE*  
~~South & east sides left at grade.~~ South & east sides to receive seed & amendments. These slopes are granted a variance from the 70% revegetation standard. Alternate standard of 50% revegetation success on slopes established until test plot data supports other standard.

## BB Dolomite Quarry ( 51.6 acres), Flat Iron Quarry (63.1 acres), North Lobe Quarry( 33.5 acres)

Benches covered with 6 inches of fines & ripped.

Bench area estimated as 85% of quarry footprint.

Benches to receive seed & amendments.

Bench faces will be allowed to remain at angles steeper than 45 degrees. The overall pit slope angles will range from 18 to 20 degrees.

Boulders placed to control public access.

Unstable highwall areas will be managed to mitigate safety hazards.

Roads within quarry excavations in bedrock will be left unreclaimed.

Bench areas granted variance from 70% revegetation standard. Alternate standard of 50% revegetation success on benches established until test plot data supports other standard.

## Poison Mtn. Crusher & Facilities (no increase in existing 17 acres)

All structures removed or demolished. Demolition debris removed from site.

Concrete walls/footings above grade demolished & removed from site.

Concrete foundations below grade broken up & buried onsite.

Affected areas will receive 6 inches or 1 foot of topsoil, seed & amendments.

## BB Dolomite Crusher & Facilities (2.4 acres)

All structures removed or demolished. Demolition debris removed from site.

Concrete walls/footings above grade demolished & removed from site.

Concrete foundations below grade broken up & buried onsite.

Affected area will receive 4 inches of topsoil, seed & amendments.

## Roads in West Quarry & BB Dolomite Areas (19.4 acres)

Roads recontoured & ripped.

Roads to receive 6 inches of topsoil, seed & amendments.

## Haul Road from Quarry Switchback to Processing Plant

This section of road allowed to remain unreclaimed under previous variance granted.

## Topsoil Stockpiles (5.2 acres)

Stockpile areas regraded & ripped.

Stockpile areas to receive seed & amendments.

Amendments = ammonium nitrate 100 lb/acre + single super phosphate 100 lb/acre + composted manure 3 tons/acre.



DRAFT

**Surety:**

**Amount:** \$1,028,000 (may need to adjust this based on latest info from SRK)

**Form:** Joint DOGM-BLM Surety Bond #XXX-XXX-XXX with ?

**Renewable Term:** 5 years - 2002